



RAW SEQUENCE LISTING
 PATENT APPLICATION: US/09/728,911 DATE: 12/28/2000
 TIME: 13:45:22

Input Set : A:\Pto.amc
 Output Set : N:\CRF3\12282000\I728911.raw

```

4 <110> APPLICANT: Presnell, Scott R.
5   Xu, Wenfeng
6   Kindsvogel, Wayne
7   Chen, Zhi
9 <120> TITLE OF INVENTION: Human Cytokine Receptor
11 <130> FILE REFERENCE: 99-93
C--> 13 <140> CURRENT APPLICATION NUMBER: US/09/728,911
C--> 13 <141> CURRENT FILING DATE: 2000-12-01
13 <150> PRIOR APPLICATION NUMBER: US 60/169,049
14 <151> PRIOR FILING DATE: 1999-12-03
16 <150> PRIOR APPLICATION NUMBER: US 60/232,219
17 <151> PRIOR FILING DATE: 2000-09-13
19 <150> PRIOR APPLICATION NUMBER: US 60/244,610
20 <151> PRIOR FILING DATE: 2000-10-31
22 <160> NUMBER OF SEQ ID NOS: 36
24 <170> SOFTWARE: FastSEQ for Windows Version 3.0
26 <210> SEQ ID NO: 1
27 <211> LENGTH: 2149
28 <212> TYPE: DNA
29 <213> ORGANISM: Homo sapiens
31 <220> FEATURE:
32 <221> NAME/KEY: CDS
33 <222> LOCATION: (1)...(693)
35 <400> SEQUENCE: 1
36 atg atg cct aaa cat tgc ttt cta ggc ttc etc atc agt ttc ttc ctt      48
37 Met Met Pro Lys His Cys Phe Leu Gly Phe Leu Ile Ser Phe Phe Leu
38   1           5           10           15
40 act ggt gta gca gga act cag tca acg cat gag tct ctg aag cct cag      96
41 Thr Gly Val Ala Gly Thr Gln Ser Thr His Glu Ser Leu Lys Pro Gln
42   20           25           30
44 agg gta caa ttt cag tcc cga aat ttt cac aac att ttg caa tgg cag      144
45 Arg Val Gln Phe Gln Ser Arg Asn Phe His Asn Ile Leu Gln Trp Gln
46   35           40           45
48 cct ggg agg gca ctt act ggc aac agc agt gtc tat ttt gtg cag tac      192
49 Pro Gly Arg Ala Leu Thr Gly Asn Ser Ser Val Tyr Phe Val Gln Tyr
50   50           55           60
52 aaa ata tat gga cag aga caa tgg aaa aat aaa gaa gac tgt tgg ggt      240
53 Lys Ile Tyr Gly Gln Arg Gln Trp Lys Asn Lys Glu Asp Cys Trp Gly
54   65           70           75           80
56 act caa gaa etc tct tgt gac ctt acc agt gaa acc tca gac ata cag      288
57 Thr Gln Glu Leu Ser Cys Asp Leu Thr Ser Glu Thr Ser Asp Ile Gln
58   85           90           95
60 gaa cct tat tac ggg agg gtg agg gcg gcc tcy gct ggg agc tac tca      336
61 Glu Pro Tyr Tyr Gly Arg Val Arg Ala Ala Ser Ala Gly Ser Tyr Ser
62   100          105          110
64 gaa tgg agc atg acg ccg cgg ttc act ccc tgg tgg gaa aca aaa ata      384
65 Glu Trp Ser Met Thr Pro Arg Phe Thr Pro Trp Trp Glu Thr Lys Ile

```

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```

66          115          120          125
68 gat cct cca gtc atg aat ata acc caa gtc aat ggc tct ttg ttg gta 432
69 Asp Pro Pro Val Met Asn Ile Thr Gln Val Asn Gly Ser Leu Leu Val
70          130          135          140
72 att ctg cat gct cca aat tta gca tat aga tac caa aag gaa aaa aat 480
73 Ile Leu His Ala Pro Asn Leu Pro Tyr Arg Tyr Gln Lys Glu Lys Asn
74          145          150          155          160
76 gta tct ata gaa gat tac tat gaa cta cta tac cga gtt ttt ata att 528
77 Val Ser Ile Glu Asp Tyr Tyr Glu Leu Leu Tyr Arg Val Phe Ile Ile
78          165          170          175
80 aac aat tca cta gaa aag gag caa aag gtt tat gaa ggg gct cac aga 576
81 Asn Asn Ser Leu Glu Lys Glu Gln Lys Val Tyr Glu Gly Ala His Arg
82          180          185          190
84 gcg gtt gaa att gaa gct cta aca cca cac tcc agc tac tgt gta gtg 624
85 Ala Val Glu Ile Glu Ala Leu Thr Pro His Ser Ser Tyr Cys Val Val
86          195          200          205
88 gct gaa ata tat cag ccc atg tta gac aga aga agt cag aga agt gaa 672
89 Ala Glu Ile Tyr Gln Pro Met Leu Asp Arg Arg Ser Gln Arg Ser Glu
90          210          215          220
92 gag aga tgt gtg gaa att cca tgacttggtg aatttgcat tcagcaatgt 723
93 Glu Arg Cys Val Glu Ile Pro
94          225          230
96 ggaaattcta aagctccctg agaacaggat gactcgtgtt tgaaggatct tattttaaatt 783
97 tgtttttgta ttttctttaa gcaatattca ctgttacacc ttggggactt ctttqittat 843
98 ccattctttt atcctttata tttcatittt aactataatt gaacgacatt ccccccgaaa 903
99 aattgaaatg taaagatgag gcagagaata aagtgttcta tgaattcag aactttattt 963
100 ctgaatgtaa catccctaatt aacacccctc attctttctaa tacagcaaaa taaaaattta 1023
101 acaaccaaag aatagtattt aagaaaatgt tgaataaatt tttttaaaat agcattacag 1083
102 actgaggcgg tcttgaaagca atgggttttc actctcttat tgagccaatt aaattgacat 1143
103 tgccttgaca atttaaaact tctataaagg tgaatatttt tcatatattt ctattttata 1203
104 tgaatatact ttttatatat ttattattat taaatatttc tacttaalga atcaaaaattt 1263
105 tgttttaaag tctactttat gtaataaaga acaggttttg gggaaaaaaa tcttatgttt 1323
106 tctgatttga tatctgaatt aaaactatca acnacaagga agtctactct gtacaattgt 1383
107 cctcatitta aaagatatat taagcttttc tttctgtttt gtttttgitt tgttttagtt 1443
108 ttaactcclgt cttagaagaa cttatcttta ttctraaaat taaatgtaat ttttttagtg 1503
109 acaagaaga aaggaaccc cttactcaa tcttcttggc caagagtgtc ttgcttggtg 1563
110 ccccttctc atctctatat aggaagatcc catgaatgat gttttatttg gaactgctgg 1623
111 ggtcagccc atacagagaa ctcagcttga agctggagag acacagtggg tagcaggaga 1683
112 aggaccggtg ttggtaggtg cctacagaga ctatagagct agacaaagcc ctccaaactg 1743
113 gcccctcctg ctactgctt ctcctgagta gaaatctggt gacctaaaggc tcaytgcggt 1803
114 caacagaaa ctgccttctt cacttgaggc taagtcttca tatatgttta aggtttgctt 1863
115 tctagttagg agatacatat cagagaacat ttgtacaatt ccccatgaa attgctccaa 1923
116 agttgataac aatatagttc gtgcttctag ttatatgcaa gtactcagtg ataaatggat 1983
117 taaaaaatat tcagaaatgt attggggggt ggaggagaat aagaggcaga gcaagagcta 2043
118 gagaatttgt ttccttgctt cctgtatgc tcagaaaaca ttgatgttag catagacgca 2103
119 gagactgaaa aaaaaaaat gctcgagcgg ccgcacatcc cttggt 2149
121 <210> SEQ ID NO: 2
122 <211> LENGTH: 231
123 <212> TYPE: PRT

```

RAW SEQUENCE LISTING
 PATENT APPLICATION: US/09/728,911

DATE: 12/28/2000
 TIME: 13:45:22

Input Set : A:\Pto.amc
 Output Set: N:\CRF3\12282000\I728911.raw

124 <213> ORGANISM: Homo sapiens

126 <400> SEQUENCE: 2

```

127 Met Met Pro Lys His Cys Phe Leu Gly Phe Leu Ile Ser Phe Phe Leu
128 1 5 10 15
130 Thr Gly Val Ala Gly Thr Gln Ser Thr His Glu Ser Leu Lys Pro Gln
131 20 25 30
132 Arg Val Gln Phe Gln Ser Arg Asn Phe His Asn Ile Leu Gln Trp Gln
133 35 40 45
134 Pro Gly Arg Ala Leu Thr Gly Asn Ser Ser Val Tyr Phe Val Gln Tyr
135 50 55 60
136 Lys Ile Tyr Gly Gln Arg Gln Trp Lys Asn Lys Glu Asp Cys Trp Gly
137 65 70 75 80
138 Thr Gln Glu Leu Ser Cys Asp Leu Thr Ser Glu Thr Ser Asp Ile Gln
139 85 90 95
140 Glu Pro Tyr Tyr Gly Arg Val Arg Ala Ala Ser Ala Gly Ser Tyr Ser
141 100 105 110
142 Glu Trp Ser Met Thr Pro Arg Phe Thr Pro Trp Trp Glu Thr Lys Ile
143 115 120 125
144 Asp Pro Pro Val Met Asn Ile Thr Gln Val Asn Gly Ser Leu Leu Val
145 130 135 140
146 Ile Leu His Ala Pro Asn Leu Pro Tyr Arg Tyr Gln Lys Glu Lys Asn
147 145 150 155 160
148 Val Ser Ile Glu Asp Tyr Tyr Glu Leu Leu Tyr Arg Val Phe Ile Ile
149 165 170 175
150 Asn Asn Ser Leu Glu Lys Glu Gln Lys Val Tyr Glu Gly Ala His Arg
151 180 185 190
152 Ala Val Glu Ile Glu Ala Leu Thr Pro His Ser Ser Tyr Cys Val Val
153 195 200 205
154 Ala Glu Ile Tyr Gln Pro Met Leu Asp Arg Arg Ser Gln Arg Ser Glu
155 210 215 220
156 Glu Arg Cys Val Glu Ile Pro
157 225 230

```

159 <210> SEQ ID NO: 3

160 <211> LENGTH: 693

161 <212> TYPE: DNA

162 <213> ORGANISM: Artificial Sequence

164 <220> FEATURE:

165 <223> OTHER INFORMATION: This degenerate nucleotide sequence encodes the
 166 amino acid sequence of SEQ ID NO:2.

168 <221> NAME/KEY: misc_feature

169 <222> LOCATION: (1)...(693)

170 <223> OTHER INFORMATION: n = A,T,C or G

172 <400> SEQUENCE: 3

```

W--> 173 atgatgccna arcaytgytt yytnggntty ytnathwsnt tyttyytnac nggngtngcn 60
W--> 174 ggnacncarw snacncayga rwsnytnaar ccncarmgng tncarttyca rwsnmgnaay 120
W--> 175 ttycayaaya thytncartg gcarccnggn mgngcnytna cnggnaayws nwsngtntay 180
W--> 176 ttygtncart ayaarathta yggncarmgn cartggaara ayaargarga ytgtyggggg 240
W--> 177 acncargary tnwsntgyga yytnacnwsn garacnwsng ayathcarga rccntaytay 300
W--> 178 ggnmgngtnm gngcngcnws ngcnggnwsn taywsngart ggwsnatgac nccnmgntty 360

```

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Input Set : A:\Pto.amc
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```

W--> 179 acnccntggt gggaracnaa rathgayccn ccngtnatga ayathacnca rgtnaayggn      420
W--> 180 wsnytnytng tnathytnca ygcncnaay ytnccntaym gntaycaraa rgaraaraay      480
W--> 181 gtnwsnathg argaytayta ygarytnytn taymgngtnt tyathathaa yaaywsnytn      540
W--> 182 garaargarc araargnta ygargngcn caymgngcng tngarathga rgcnytnacn      600
W--> 183 ccncaywsnw sntaytyggt ngtnngcnar athtaycarc cnatgytnga ymgngnwnsn      660
W--> 184 carmgwnsng argarmgtg ygtngarath ccn      693

186 <210> SEQ ID NO: 4
187 <211> LENGTH: 16
188 <212> TYPE: PRT
189 <213> ORGANISM: Artificial Sequence
191 <220> FEATURE:
192 <223> OTHER INFORMATION: Peptide linker.
194 <400> SEQUENCE: 4
195 Gly Gly Ser Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
196 1 5 10 15
198 <210> SEQ ID NO: 5
199 <211> LENGTH: 699
200 <212> TYPE: DNA
201 <213> ORGANISM: Homo sapiens
203 <400> SEQUENCE: 5
204 gaqcccagat cttcaqacaa aactcacaca tgcccaccgt gcccaqccac tgaagccgag      60
205 ggggcacrgt cagtcttccf cttcccccca aaacccaagg acaccctcat gatctcccgg      120
206 acccttgagg tcacatgcgt ggtggtgagc gtgaqccacg aagaccctga ggtcaagtcc      180
207 aactggtacg tggacggcgt ggaggtgcat aatgccaaqa caaagccgcg ggaggagcag      240
208 tacaacagca cgtaccgtgt ggtcagcctc ctccaccgtcc tgcaccagga ctggttgaat      300
209 ggcaggagat acaagtgcga ggtctccaa aaagccctcc catctccat cgagaaaacc      360
210 atctccaaaq ccaaaaggca gcccagaa caacaggtgt acaccctgcc cccatcccgg      420
211 gatgaqctga ccaagaacca ggtcagcctg acctgcttgg tcaaaagcct ctatccagc      480
212 gacatgcgcg tggagtggga gagcaatggg cagccggaga acaactacaa gaccacgcct      540
213 cccgtgctgg actccgacgg ctctctcttc ctctacagca agctaccgt ggcacagugc      600
214 aggtggcagc aggggaacgt cttctcatgc tccgtgatgc atgaggctct gcacaaccac      660
215 tacacqacga agagcctctc cctgtctccg ggtaaataa      699
217 <210> SEQ ID NO: 6
218 <211> LENGTH: 32
219 <212> TYPE: DNA
220 <213> ORGANISM: Artificial Sequence
222 <220> FEATURE:
223 <223> OTHER INFORMATION: Oligonucleotide primer ZC29181
225 <400> SEQUENCE: 6
226 gcggatccac tcagtcaacg catgagtctc tg      32
228 <210> SEQ ID NO: 7
229 <211> LENGTH: 33
230 <212> TYPE: DNA
231 <213> ORGANISM: Artificial Sequence
233 <220> FEATURE:
234 <223> OTHER INFORMATION: Oligonucleotide primer ZC29182
236 <400> SEQUENCE: 7
237 gcagatcttg gaatttccac acatctctct tca      33
239 <210> SEQ ID NO: 8

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RAW SEQUENCE LISTING DATE: 12/28/2000
 PATENT APPLICATION: US/09/728,911 TIME: 13:45:22

Input Set : A:\Pto.amc
 Output Set: N:\CRF3\12282000\I728911.raw

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240 <211> LENGTH: 108
241 <212> TYPE: DNA
242 <213> ORGANISM: Homo sapiens
244 <220> FEATURE:
245 <221> NAME/KEY: CDS
246 <222> LOCATION: (1)...(108)
248 <400> SEQUENCE: 8
249 atg gat gca atg aag aqa ggg ctc tgc tgt qtg ctg ctg ctg tgt ggc      48
250 Met Asp Ala Met Lys Arg Gly Leu Cys Cys Val Leu Leu Leu Cys Gly
251 1 5 10 15
253 gcc qtc ttc gtt tcg ctc agc cag qaa atc cat gcc gag ttg aqa cgc      96
254 Ala Val Phe Val Ser Leu Ser Gln Glu Ile His Ala Glu Leu Arg Arg
255 20 25 30
257 ttc cgt aqa tcc      108
259 Phe Arg Arg Ser
260 35
262 <210> SEQ ID NO: 9
263 <211> LENGTH: 36
264 <212> TYPE: PRT
265 <213> ORGANISM: Homo sapiens
267 <400> SEQUENCE: 9
268 Met Asp Ala Met Lys Arg Gly Leu Cys Cys Val Leu Leu Leu Cys Gly
269 1 5 10 15
270 Ala Val Phe Val Ser Leu Ser Gln Glu Ile His Ala Glu Leu Arg Arg
271 20 25 30
272 Phe Arg Arg Ser
273 35
275 <210> SEQ ID NO: 10
276 <211> LENGTH: 6
277 <212> TYPE: PRT
278 <213> ORGANISM: Artificial Sequence
280 <220> FEATURE:
281 <223> OTHER INFORMATION: Glu-Glu (CEE) Tag amino acid sequence
283 <400> SEQUENCE: 10
284 Glu Tyr Met Pro Met Glu
285 1 5
287 <210> SEQ ID NO: 11
288 <211> LENGTH: 8
289 <212> TYPE: PRT
290 <213> ORGANISM: Artificial Sequence
292 <220> FEATURE:
293 <223> OTHER INFORMATION: FLAG Tag amino acid sequence
295 <400> SEQUENCE: 11
296 Asp Tyr Lys Asp Asp Asp Lys
297 1 5
299 <210> SEQ ID NO: 12
300 <211> LENGTH: 6
301 <212> TYPE: PRT
302 <213> ORGANISM: Artificial Sequence

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VERIFICATION SUMMARY
PATENT APPLICATION: US/09/728,911

DATE: 12/28/2000
TIME: 13:45:23

Input Set : A:\Pto.amc
Output Set: N:\CRF3\12282000\I728911.raw

L:13 M:270 C: Current Application Number differs, Replaced Current Application No
L:13 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:173 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:174 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:175 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:176 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:177 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:178 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:179 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:180 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:181 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:182 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:183 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:184 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3



OIPE

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/728,911

DATE: 12/18/2000

TIME: 12:36:02

Input Set : A:\99-93.SEQ.txt

Output Set: N:\CRF3\12142000\I728911.raw

Does Not Comply
Corrected Diskette Needed

4 <110> APPLICANT: Presnell, Scott R.
5 Xu, Wenfeng
6 Kindsvogel, Wayne
7 Chen, Zhi
9 <120> TITLE OF INVENTION: Human Cytokine Receptor
11 <130> FILE REFERENCE: 99-93
C--> 13 <140> CURRENT APPLICATION NUMBER: US/09/728,911
C--> 13 <141> CURRENT FILING DATE: 2000-12-01
13 <150> PRIOR APPLICATION NUMBER: US 60/169,049
14 <151> PRIOR FILING DATE: 1999-12-03
16 <150> PRIOR APPLICATION NUMBER: US 60/232,219
17 <151> PRIOR FILING DATE: 2000-09-13
19 <150> PRIOR APPLICATION NUMBER: US 60/244,610
20 <151> PRIOR FILING DATE: 2000-10-31
22 <160> NUMBER OF SEQ ID NOS: 36
24 <170> SOFTWARE: FastSEQ for Windows Version 3.0

ERRORED SEQUENCES

948 <210> SEQ ID NO: 36
949 <211> LENGTH: 211
950 <212> TYPE: PRP
951 <213> ORGANISM: Homo sapiens
953 <400> SEQUENCE: 36
954 Ser Asp Ala His Gly Thr Glu Leu Pro Ser Pro Pro Ser Val Trp Phe
955 1 5 10 15
956 Glu Ala Glu Phe Phe His His Ile Leu His Trp Thr Pro Ile Pro Asn
957 20 25 30
958 Gln Ser Glu Ser Thr Cys Tyr Glu Val Ala Leu Leu Arg Tyr Gly Ile
959 35 40 45
960 Glu Ser Trp Asn Ser Ile Ser Asn Cys Ser Gln Thr Leu Ser Tyr Asp
961 50 55 60
962 Leu Thr Ala Val Thr Leu Asp Leu Tyr His Ser Asn Gly Tyr Arg Ala
963 65 70 75 80
964 Arg Val Arg Ala Val Asp Gly Ser Arg His Ser Asn Trp Thr Val Thr
965 85 90 95
966 Asn Thr Arg Phe Ser Val Asp Glu Val Thr Leu Thr Val Gly Ser Val
967 100 105 110
968 Asn Leu Glu Ile His Asn Gly Phe Ile Leu Gly Lys Ile Gln Leu Pro
969 115 120 125
970 Arg Pro Lys Met Ala Pro Ala Asn Asp Thr Tyr Glu Ser Ile Phe Ser
971 130 135 140
972 His Phe Arg Glu Tyr Glu Ile Ala Ile Arg Lys Val Pro Gly Asn Phe
973 145 150 155 160
974 Thr Phe Thr His Lys Lys Val Lys His Glu Asn Phe Ser Leu Leu Thr
975 165 170 175

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/728,911

DATE: 12/18/2000
TIME: 12:36:02

Input Set : A:\99-93.SEQ.txt
Output Set: N:\CRF3\12142000\I728911.raw

```
976 Ser Gly Glu Val Gly Glu Phe Cys Val Glu Val Lys Pro Ser Val Ala
977                      180                      185                      190
978 Ser Arg Ser Asn Lys Gly Met Trp Ser Lys Glu Glu Cys Ile Ser Leu
979                      195                      200                      205
980 Thr Arg Glu
981      210
E--> 987 1
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VERIFICATION SUMMARY

DATE: 12/18/2000

PATENT APPLICATION: US/09/728,911

TIME: 12:36:03

Input Set : A:\99-93.SEQ.txt

Output Set: N:\CRF3\12142000\I728911.raw

L:13 M:270 C: Current Application Number differs, Replaced Current Application No
L:13 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:173 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:174 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:175 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:176 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:177 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:178 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:179 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:180 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:181 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:182 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:183 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:184 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:987 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:36